

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently amended) A method for data-flow protection of optical interface, comprising:

receiving an ~~optical-optical~~-signal from a source-neighboring device;

duplicating the ~~optical-optical~~-signal into at least two duplicated ~~optical-optical~~-signals: a first duplicated ~~optical-optical~~-signal and a second duplicated ~~optical-optical~~-signal,

sending the first duplicated ~~optical-optical~~-signal to the ~~a~~-protected device for processing, and

sending directly the second duplicated ~~optical-optical~~-signal to be selected;

receiving a working status signal output generated by the protected device and an output optical-signal from the protected device, and selecting one from the second duplicated optical-signal and the output optical-signal of the protected device according to the working status signal output of the protected device, and sending the selected one to a destination-neighboring device.

2. (Previously presented) The method according to Claim 1, wherein receiving a working status signal output comprises, if the working status signal output of the protected device is normal, selecting the output optical-signal of the protected device and sending the output optical-signal to the destination-neighboring device; if the working status signal output of the protected device is abnormal, selecting the second

duplicated optical-signal directly and sending the second duplicated optical-signal to the destination-neighboring device.

3. (Cancelled)

4. (Currently amended) A data-flow protection device of an optical interface, comprising:

a first optical-signal duplicating unit and an optical-signal selecting unit;

wherein an input of the first optical-signal duplicating unit is connected to a source-neighboring device for receiving an optical-signal, ~~one-a first~~ output of the first optical-signal duplicating unit is directly connected to ~~one-a first~~ input of the optical-signal selecting unit, ~~another-a second~~ output of the first optical-signal duplicating unit connects to an input of a protected device;

wherein ~~another-a second~~ input of the optical-signal selecting unit is connected to an optical-signal output of the protected device, a control end of the optical-signal selecting unit is connected with a working status signal output of the protected device, ~~the-an~~ output of the optical-signal selecting unit connects to a destination-neighboring device.

5. (Cancelled)

6. (Currently amended) The data-flow protection device according to Claim 9, wherein the optical power detecting unit comprises an optical-electrical conversion diode, an operational amplifier and an analog comparator;

wherein the optical-electrical conversion component receives an optical-signal outputted by the second optical-signal duplicating unit, converts the optical-signal to an electrical signal and output the electrical signal to the operational amplifier;

the analog comparator receives the amplified electrical signal from the operational amplifier, compares the amplified electrical signal with a preset threshold value, outputs a control signal to ~~one-an~~ input of the logic module control.

7. (Currently amended) The data-flow protection device according to Claim 4, wherein the first optical-signal duplication unit is an optical splitter, and the optical-signal selecting unit is an optical switch.

8. (Currently amended) A method for data-flow protection of an optical interface comprising:

receiving an ~~optical-optical~~-signal from a source-neighboring device;

duplicating the ~~optical-optical~~-signal into at least two duplicated ~~optical-optical~~-signals; including a first duplicated ~~optical-optical~~-signal and a second duplicated ~~optical-optical~~-signal;

sending the first duplicated ~~optical-optical~~-signal to ~~the a~~ protected device for processing;

sending directly the second duplicated ~~optical-optical~~-signal to be selected;

receiving a working status signal output of the protected device and an output optical-signal of the protected device from the protected device;

re-duplicating the output optical-signal of the protected device into at least two re-duplicated ~~optical-optical~~-signals;

if the working status signal output of the protected device is normal and if an optical power of one of the at least two re-duplicated ~~optical-optical~~-signals is not lower than a preset threshold value, selecting ~~another the other one of the~~ at least two re-duplicated ~~optical-optical~~-signals to ~~the a~~ destination-neighboring device;

if the working status signal output of the protected device is normal and the optical power of the one of the at least two re-duplicated ~~optical-optical~~-signals is lower than the preset threshold value, selecting the second duplicated ~~optical-optical~~-signal

directly and sending the second duplicated ~~optical-optical~~-signal to the destination-neighboring device;

if the working status signal output of the protected device is abnormal, selecting the second duplicated ~~optical-optical~~-signal directly and sending the second duplicated ~~optical-optical~~-signal to the destination-neighboring device.

9. (Currently amended) A data-flow protection device of an optical interface comprising:

a first optical-signal duplicating unit, an optical-signal selecting unit, a second optical-signal duplicating unit, an optical power detecting module and a logic module;

wherein an input of the first optical-signal duplicating unit is connected to a source-neighboring device for receiving an optical-signal, ~~one-a first~~ output of the first optical-signal duplicating unit is directly connected to ~~one-an~~ input of the optical-signal selecting unit, ~~another-a second~~ output of the first optical-signal duplicating unit connects to input of a protected device;

wherein an optical-signal output of the protected device is connected to an input of the second optical-signal duplicating unit, ~~one-a first~~ output of the second optical-signal duplicating unit connects to the optical-signal selecting unit, ~~another-a second~~ output of the second optical-signal duplicating unit connects to ~~the-an~~ input of the optical power detecting module;

wherein an output of the optical power detecting module is connected to ~~one-a first~~ input of the logic module, ~~another-a second~~ input of the logic module is connected to a working status signal output of the protected device, and ~~the-an~~ output of the logic module connects to a control end of the optical-signal selecting unit, ~~the-an~~ output of the optical-signal selecting unit connects to a destination-neighboring device.